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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,760	10/14/2003	Thomas F. Rust	LAZE-01015US1	3346
23910	7590	06/15/2005		
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			EXAMINER NGUYEN, HOANG M	
			ART UNIT 3748	PAPER NUMBER

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/684,760

Applicant(s)

RUST, THOMAS F.

Examiner

Hoang M. Nguyen

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/10/04, 6/16/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8, are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,300,350 (Becker). Becker discloses a thermal actuator comprising a pull rod 24, a pair of arms including a top arm 18 and a lower arm 16, each arm comprising two different materials, input electrical signals are used to actuate said arms to push-pull the rod.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9-15, are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,300,350 (Becker) in view of US 5,962,949 (Dhuler et al). Becker teaches all the claimed subject matter as set forth above, but does not teach an output platform with many actuators. Dhuler et al discloses a microelectromechanical system comprising many stages 16 with different actuators 30 acting in X, Y, Z directions to move a platform 44. It would have been obvious to a person having ordinary skill in the

Art Unit: 3748

art to provide many actuators of Becker as taught by Dhuler et al for a same apparatus for the purpose of driving a platform in many locations/directions.

Claims 16-23, are rejected under 35 U.S.C. § 103(a) as being unpatentable over US 4,300,350 (Becker) in view of US 5,962,949 (Dhuler et al) and US 6305788 (Silverbrook). Becker teaches all the claimed subject matter as set forth above, but does not teach a fault tolerant feature. Silverbrook discloses a microelectromechanical system having a fault tolerant feature (column 8, lines 17-18). It would have been obvious to a person having ordinary skill in the art to provide a tolerant feature in the actuator of Becker as taught by Silverbrook for safety purpose.

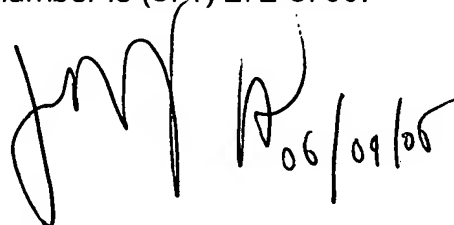
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haake et al, and Low et al disclose thermal actuators comprising pull rods.

Art Unit: 3748

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Examiner Nguyen whose telephone number is (571) 272-4861. The examiner can normally be reached on Tuesday--Friday from 12:30 AM to 10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion, can be reached on (571)-272-4859. The fax phone number for the Examiner is (703) 872-9306 for regular communication, and (703) 872-9303 for after final communication.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-3700.

A handwritten signature in black ink, appearing to be 'H.M. Nguyen', followed by the date '06/09/05' written in a similar cursive style.

HOANG NGUYEN
PRIMARY EXAMINER
ART UNIT 3748

Hoang Minh Nguyen
6/9/05